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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,621	03/01/2002	David Pratt Remsen	58378.127	7946
23483	7590	10/06/2005	EXAMINER	
WILMER CUTLER PICKERING HALE AND DORR LLP			CHEN, CHONGSHAN	
60 STATE STREET			ART UNIT	
BOSTON, MA 02109			PAPER NUMBER	
			2162	
DATE MAILED: 10/06/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,621

Applicant(s)

REMSEN ET AL.

Examiner

Chongshan Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32,33 and 38-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32,33 and 38-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/28/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 32, 33 and 38-71 are pending in this Office Action.

Claim Objections

2. Claim 60 is objected to because of the following informalities: claim 60 recites "... allowing-taxa to be organized according to more that one classification". Please change the "that" to "than".
3. Claim 68 recites "wherein the objectively derived criteria includes a documented associated between the first name and the second name". Both the "documented" and "associated" are adjective. The limitation is missing a noun in the limitation.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 32, 33, 38, 41-60 and 67-71 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106 IV. B.2. (b)

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is

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either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application within the technological arts.

Regarding claims 32, 33, 41, 60 and 67-70 in view of the above cited MPEP section, are not statutory because they merely recite a number of computing steps without producing any tangible result and/or being limited to a practical application within the technological arts. All the recited steps of the method can be done by a person as a mental step or using pencil and paper. The use of a computer has not been indicated.

Regarding claims 38 and 71, even though the preamble recites a system, but the remainder of the claim does not support the preamble. All the elements or features of the claimed system does not necessarily implemented in hardware. The claims are at least directed to an arrangement of software, per se, and they are rejected under 101 for not being tangible.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 71 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added claim 71 recites "... as a proxy for one or more information management applications". This limitation is not supported by the specification.

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7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 32, 33, 38, 39, 61 and 67-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 32 recites the limitation "the name" in second limitation of claim 32. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required for this error in claim 32 and other claims.

10. The term "sufficiently similar" in independent claims 32, 38, 39, and 61 are a relative term which renders the claim indefinite. The term "sufficiently similar" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

11. Claim 33 is indefinite because the parent claim does not mention any search or search parameter. Therefor, it is unclear what are the original search parameters.

12. Claim 61 recites "a first part of a distributed database" and "a second part of the distributed database". It is unclear what is the first/second part of the distributed database. Is the first part of the distributed database same as the second part, or they are different.

13. Claim 67 recites "associating the first name with a name identifier". "The first name" itself is already a name identifier. It is unclear how and why to associate the first name with a name identifier.

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14. Claim 67 recites the limitation "the first name identifier" in the last limitation of claim 67. There is insufficient antecedent basis for this limitation in the claim. Please check and correct all lack of antecedent basis errors.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 32, 33 and 38-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cotter et al. (hereinafter "Cotter", "The National Biological Information Infrastructure: coming of age", Online Information Review, Volume 24 – Number 6, pp. 429-438, copyright MCB University Press, ISSN: 1468-4527 (2000)) in view of Martin R. Pullan et al. (hereinafter "Pullan", "The Prometheus Taxonomic Model: a practical approach to representing multiple classifications", Taxon 49: 55-75, 2000, ISSN 0040-0262).

As per claim 32, Cotter discloses a method for use in managing taxonomic information, comprising:

identifying a first name that specifies an organism (Cotter, page 432 - 435);

determining that the name is sufficiently similar to a text string of a name entry in a names table (Cotter, page 435, "Conceptually, researchers or cataloguers creating metadata will enter a term that they know, which the system then checks against the controlled vocabulary ...");

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identifying a first taxonomic identifier of the name entry (Cotter, page 432 – 435, “For instance, an IT IS check of the scientific name for ‘even grosbeak’ produces one preferred scientific name and multiple synonyms for the scientific name”);

determining that the first taxonomic identifier is included in a classification entry in a classification table (Cotter, page 432 – 435);

identifying a second taxonomic identifier of the classification entry (Cotter, page 432 – 435); and

based on the second taxonomic identifier, identifying a second name (Cotter, page 432 – 435, synonyms and authorised term).

Cotter does not explicitly disclose allowing taxa to be organized according to more than one classification. Pullan teaches allowing taxa to be organized according to more than one classification (Pullan, pages 10-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Cotter by allowing taxa to be organized according to more than one classification as disclosed by Pullan. The motivation being to better organize the data and classify the taxa more flexibly.

As per claim 33, Cotter and Pullan teach all the claimed subject matters as discussed in claim 32, and further teach driving, based on the second name and original search parameters based on the first name, revised search parameters (Cotter, page 432-435).

Claims 38, 39 are rejected on grounds corresponding to the reasons given above for claims 32 and 33.

As per claim 40, Cotter discloses a system for use in managing taxonomic information, comprising:

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a names table in which each entry associates a character string with a name identifier (Cotter, page 432 – 435);

a taxon table in which each entry associates a name identifier with a taxon identifier (Cotter, page 432 – 435);

a database of classifications (Cotter, page 432 – 435), the database including:

a reference table in which each entry associates a classification identifier with a taxon that represents the root of the classification (Cotter, page 432 – 435); and

a classification table in which each entry associates a taxon identifier with a classification identifier, a relationship attribute, and a second taxon identifier (Cotter, page 432 – 435);

a name identifier configured to identify a name that specifies an organism (Cotter, page 432 – 435);

a determiner configured to use the name and a database of classifications to help determine a classification for the organism (Cotter, page 432 – 435); and

an identifier configured to use the classification to help identify information associated with the organism (Cotter, page 432 – 435).

Cotter does not explicitly disclose the database of classifications that accommodates alternative classifications. Pullan teaches the database of classifications accommodates alternative classification (Pullan, page 10-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Cotter by accommodating alternative classifications as disclosed by Pullan. The motivation being to better organize the data and classify the taxa more flexibly.

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Claim 41 is rejected on grounds corresponding to the reasons given above for claim 40.

As per claim 42, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach based on the classification, identifying information associated with the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 43, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach the name is polynomen (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 44, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach the name is a modern name (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 45, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach the name is trinomen (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 46, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach the name is a scientific name (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 47, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach the name is non-scientific name (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 48, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach receiving a request for information including the name; and based on the request, selecting a database access layer to receive the request (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 49, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teaches receiving a request for information including the name; and directing the request to an application layer for serving client (Cotter, page 432 – 435).

As per claim 50, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach receiving a request for information including the name; and directing the request to a data layer to determine a unique identifier associated with the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 51, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach identifying a textual description associated with the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 52, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach identifying an illustration associated with the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 53, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach identifying a multimedia data object associated with the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 54, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach identifying a data pointer associated with the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 55, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach basing the identification of the information on a defined domain of information (Cotter, page 432 – 435, Pullan, page 9-17).

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As per claim 56, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach determining a biological classification for the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 57, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach determining a geographical classification for the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 58, Cotter and Pullan teach all the claimed subject matters as discussed in claim 41, and further teach determining a non-biological classification for the organism (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 59, Cotter and Pullan teach all the claimed subject matters as discussed in claim 58, and further teach identifying information associated with another organism that belongs to the classification (Cotter, page 432 – 435, Pullan, page 9-17).

As per claim 60, Cotter discloses a method for use in managing taxonomic information, comprising:

- identifying a first name that specifies an organism (Cotter, page 432-435);
- associating a first taxon with the first name (Cotter, page 432-435);
- determining that the first taxon is included in a classification entry in a classification database (Cotter, page 432-435);
- associating a second taxon with the classification entry (Cotter, page 432-435, synonyms and authorised term).

Cotter does not explicitly disclose the classification database allowing taxa to be organized according to more than one classification. Pullan teaches the classification database

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allowing taxa to be organized according to more than one classification (Pullan, pages 10-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Cotter by allowing taxa to be organized according to more than one classification as disclosed Pullan. The motivation being to better organize the data and classify the taxa more flexibly.

As per claim 61, Cotter and Pullan teach all the claimed subject matters as discussed in claim 38, and further teach at least one primary server having a first part of a distributed database, and at least one secondary server in communication with the at least one primary server and having a second part of the distributed database (Cotter, page 429-432, Cotter teaches a web based system which inherently includes servers).

Claims 62-66 are rejected on grounds corresponding to the reasons given above for claims 43-47.

As per claim 67, Cotter discloses a method for use in managing taxonomic information, comprising:

identifying a first name that specifies an organism (Cotter, page 432-435, “searching on ‘evening grosbeak’ ...”, the ‘evening grosbeak’ is the first name);

associating the first name with a name identifier (Cotter, page 432-435, a first name is inherently includes a name identifier, such as “evening grosbeak”); and

associating a second name with the first name identifier based on objectively derived criteria (Cotter, page 432-435, “searching on ‘evening grosbeak’ also means simultaneously searching via these synonyms. The synonyms are the second name).

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As per claim 68, Cotter teaches all the claimed subject matters as discussed in claim 67, and further teaches the objectively derived criteria includes a documented associated between the first name and the second name (Cotter, page 432-435).

As per claim 69, Cotter teaches all the claimed subject matters as discussed in claim 68, and further teaches wherein the first name is a scientific name and the second name is a common name (Cotter, page 432-435).

As per claim 70, Cotter teaches all the claimed subject matters as discussed in claim 68, and further teaches the first and second names are scientific names and wherein the second name is a factual variant of the first name (Cotter, page 432-435).

As per claim 71, Cotter discloses a distributed system for use in locating information resources related to biological organisms, the system comprising:

- a set of client software for communicating with information management applications serving unique name identifiers associated with unique information identifiers (Cotter, page 432-436);

- a first determiner to determine that a first unique name identifier is included within one or more classification entries in a classification table on a remote name server (Cotter, page 432-436);

- a second determiner to determine a second unique name identifier is associated with the first unique name identifier with a names table on a remote name server (Cotter, page 432-436);
- and

- a set of service software for distributing unique name identifiers associated with unique associated information identifiers as a proxy for one or more information management

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applications (Cotter, page 429-432, Cotter a web based system which let user search information related to biology etc).

Response to Arguments

17. Applicant's arguments, see page 2, filed June 20, 2005, with respect to restriction requirement have been fully considered and are persuasive. The restriction requirement has been withdrawn.

18. Applicant's arguments, see page 13 and 14, filed January 3, 2005, with respect to the rejection(s) of claim(s) 32, 38 and 39 under 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Martin R. Pullan et al., "The Prometheus Taxonomic Model: a practical approach to representing multiple classifications", Taxon 49: 55-75, 2000, ISSN 0040-0262.

Contact Information

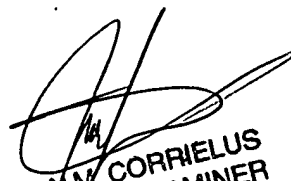
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chongshan Chen whose telephone number is (571) 272-4031. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chongshan Chen
October 1, 2005



JEAN M. CORRIELLUS
PRIMARY EXAMINER